Mutation Causing Cardiomyopathy Validated in Mouse Embryonic Stem Cells

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Researchers at UC, Irvine used mouse embryonic stem cells to demonstrate that a specific mutation can cause cardiomyopathy, with a thickened heart wall, in the mouse. The team looked at the small DNA molecule located outside of the nucleus, so-called mitochondrial DNA, which we all inherit exclusively from our mothers. They also discovered that severe mutations in this mitochondrial DNA are readily eliminated from the mouse germ line in just four generations. They expect the method they used to become a robust research tool to study the impact of mutations on stem cells.

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